

## CLAIMS

We Claim:

1           1. A color calibration system within a printing device comprising:  
2           a controller that controls print functions;  
3           a light emitter situated to emit light on media fed into the printing  
4 device; and,  
5           a color sensor that detects light from the light emitter reflecting off the  
6 media, the color sensor generating a feedback signal for use by the controller,  
7 the controller using the feedback signal for color calibration of images placed on  
8 the media.

1           2. A color calibration system as in claim 1 wherein the controller  
2 additionally uses the feedback signal for at least one of the following:  
3           adjusting firing timing of a printhead;  
4           adjusting ink volume placed on the media; and,  
5           selecting nozzles to be used for printing.

1           3. A color calibration system as in claim 1 additionally comprising:  
2           an analog-to-digital converter that converts the feedback signal from  
3 analog to digital before forwarding the feedback from the color sensor to the  
4 controller.

1           4. A color calibration system as in claim 1 wherein the color sensor  
2 detects the following colors: red, green and blue.

1           5. A color calibration system as in claim 1 wherein the light emitter is a  
2 white light emitting diode.

1           6. A printing device comprising:  
2           a controller for controlling print functions;  
3           a light emitter situated to emit light on media fed into the printing  
4 device; and,  
5           a color sensor for detecting light from the light emitter reflecting off the  
6 media, the color sensor generating a feedback signal for use by the controller.

1           7. A printing device as in claim 6 wherein the controller uses the  
2 feedback signal in color calibration.

1           8. A printing device as in claim 6 wherein the controller additionally uses  
2 the feedback signal for at least one of the following:  
3           adjusting firing timing of a printhead;  
4           adjusting ink volume placed on the media; and,  
5           selecting nozzles to be used for printing.

1           9. A printing device as in claim 6 additionally comprising:

2           an analog-to-digital converter that converts the feedback signal from  
3   analog to digital before forwarding the feedback from the color sensor to the  
4   controller.

1           10. A printing device as in claim 6 wherein the color sensor detects the  
2   following colors: red, green and blue.

1           11. A printing device as in claim 6 wherein the light emitter is a white  
2   light emitting diode.

1           12. A method for performing color calibration within a printing device,  
2   the method comprising:  
3       printing information on media fed into the printing device;  
4       emitting light onto the media;  
5       detecting a plurality of colors of light reflected from the media; and,  
6       adjusting color calibration of the printing device based on the detected  
7   plurality of colors.

1           13. A method as in claim 12, wherein detecting the plurality of colors of  
2   light includes the following:  
3       generating a separate color signal for each detected color.

1           14. A method as in claim 12, wherein detecting the plurality of colors of  
2 light includes the following:  
3           generating a separate analog color signal for each detected color; and,  
4           converting the separate analog color signal for each detected color to a  
5 digital color signal.

1           15. A method as in claim 12 wherein the plurality of colors comprise red,  
2 green and blue.

1           16. A printing device comprising:  
2           printing means for printing information on media fed into the printing  
3 device;  
4           emitting means for emitting light onto the media;  
5           detecting means for detecting a plurality of colors of light reflected from  
6 the media; and,  
7           adjusting means for adjusting color calibration of the printing device  
8 based on the detected plurality of colors.

1           17. A printing device as in claim 16, wherein the detecting means  
2 includes:  
3           a generating means for generating a separate color signal for each  
4 detected color.

1           18. A printing device as in claim 16, wherein the detecting means  
2 includes:  
3           generating means for generating a separate analog color signal for each  
4 detected color; and,  
5           converter means for converting the separate analog color signal for each  
6 detected color to a digital color signal.

1           19. A printing device as in claim 16 wherein the plurality of colors  
2 comprise red, green and blue.

1           20. A printing device as in claim 16 wherein the emitting means is a  
2 white light emitting diode.